

Listening Comprehension Strategies: A Review of the Literature

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Abstract: Numerous studies related to listening comprehension strategies have been published in the past two decades. The present study seeks to build upon two previous reviews of listening comprehension strategies research. Of particular interest in this review are studies dealing with the types of cues used by listeners, the sequence of listening, differences between more- and less-proficient listeners, listening strategy instruction, strategies versus tactics, and identifying listening problems. This review first summarizes the findings of a number of studies in each of these areas. Based on these summaries, the review then posits some general conclusions and suggests directions for future research. The review demonstrates that listening comprehension strategies have been and continue to be a very fruitful area for researchers to explore.

Introduction

Over the past 25 years, one of the most important topics in L2 research has been the use and development of language learning strategies. Researchers such as O'Malley and Chamot (1990), Oxford (1990), and Rubin and Thompson (1994), along with many others, have examined a wide variety of issues related to learner strategies. The present study focuses on language learning strategies pertaining to L2 listening comprehension. There is a rich and varied body of research in the area of listening comprehension strategies and this research has been reviewed on two previous occasions. Rubin (1994) included a section on research related to listening comprehension strategies. Chamot (1995) also reviewed listening comprehension strategy research. The present study seeks to update and expand upon the work done by Rubin and Chamot by including research published since 1995. This review examines research related to listening strategies in several areas: types of cues used by listeners; the sequence of listening; differences between more- and less-proficient listeners; listening strategy instruction; strategies versus tactics; and identifying listening problems.

Types of Cues Used by Listeners

In one of the earliest studies to examine the use of listening comprehension strategies, Conrad (1981, 1985) examined the types of cues to which learners and native speakers devote their attention when listening. Results indicate that native speakers of English use primarily *semantic cues* (i.e., information provided by the context) to process aural texts, whereas both intermediate and advanced learners of English tend to direct their attention to *syntactic cues* (i.e., information provided by the grammatical structure of the sentences). However, with increasing levels of proficiency, learners appear to rely less on syntactic cues and more on semantic cues.

Harley (2000) examined the effects of age and L1 on the use of two particular listening strategies, namely syntactic cues and *prosodic cues* (i.e., information provided by the intonation and stress patterns of the sentences). Harley found that nonnative speakers of English, regardless of grade level or L1 (Chinese or Polish), tended to rely on prosodic cues to interpret ambiguous sentences or they adjusted the syntax to fit the prosodic cues. Interestingly, this was also true

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of native English speakers in the primary and middle grades. Only with native speakers at the secondary level did Harley observe a switch from relying on prosodic cues to relying on syntactic cues. As a result of these findings, Harley argued that it was important to familiarize learners with the prosodic patterns of the L2 because these prosodic cues provided an important linguistic foundation for successful inferencing.

The findings of these two researchers suggest that learners should be encouraged to develop listening strategies that focus more on prosodic and semantic cues and less on syntactic cues. However, because each of these studies focused on learners of English, it is not clear that these findings can be generalized to learners of other languages. For example, English follows a relatively rigid S-V-O word order and its morphology is relatively simple. Consequently, researchers need to examine the roles that syntactic cues play in listening comprehension for learners of languages that have a more flexible word order (e.g., Spanish), languages that do not follow an S-V-O word order (e.g., Japanese, Russian), or languages that are morphologically complex (e.g., Turkish, Finnish). In addition, researchers should examine the roles that syntactic and prosodic cues play in listening comprehension for learners of tonal languages (e.g., Chinese, Yoruba).

Thus, while it is clear from the work of both Conrad and Harley that learners of English and adult native speakers of English attend to different types of cues to process aural input, many questions remain regarding the cues to which learners of languages other than English attend and how their behavior in that regard compares with the behavior of adult native speakers of those languages. Addressing these questions would be beneficial for instructors of those languages in their efforts to develop language-appropriate listening comprehension curricula.

Although neither Conrad nor Harley specifically addressed this, their results also seem to suggest that, at some point, it may be important to encourage intermediate and advanced learners of English to begin to focus on syntactic cues if they aspire to a more native-like level of listening comprehension. Consequently, more work needs to be done on how and when learners should be encouraged to adopt more native-like processing strategies. Is this something learners can only acquire over time or can the process be accelerated by appropriate instruction and practice? What would constitute "appropriate instruction and practice?" While identifying the differences between the processing strategies of learners and native speakers is a necessary first step in addressing these questions, the research needs to move beyond that step and provide information on how best to assist learners with the transition from nonnative to more native-like processing strategies as they aspire to acquire more native-like listening comprehension proficiency.

The Sequence of Listening

Martin (1982) reported that learners generally follow a common sequence of activities when listening. First, learners orient themselves to the listening task by becoming accustomed to various characteristics of the input, such as sound quality, rate of speech, pronunciation, and vocabulary. Second, learners decode input and attempt to fit meanings together to determine the main idea of the input. Once the main idea is established, learners can then draw upon their previous knowledge and experience regarding the topic. Finally, learners attempt to match the new information from the input against the perceived main idea or their previous knowledge. Martin also noted that strategy use occurs in the second and third phases of the listening process.

Young (1997) reported that learners tend to follow a specific pattern of strategy use. Learners first employ either inferencing to guess the topic of the text through contextual and acoustic cues, or elaboration to activate their background knowledge of the topic. Once background knowledge had been activated, learners employ summarization to reinforce their interpretation of the text. At this point, learners employ strategies such as self-monitoring and self-evaluation to monitor and control comprehension or evaluate strategy use. Afterwards, learners sometimes interact with the text by making comments, even though there is no speaker present.

First and foremost, in addition to finding similar patterns of strategy use, both of these studies confirmed and emphasized the active nature of listening comprehension. Learners take an active role in orienting themselves to the listening task, accessing their background knowledge, and comparing their interpretation of the input with the actual input. They also evaluate and monitor their strategy use. This information is critical for the preparation of listening materials. For example, listening materials should include prelistening activities that encourage learners to orient themselves and activate background knowledge. The during and postlistening activities should encourage listeners to develop their interpretation of the input and compare it with the actual input. Even after many years of listening research pointing to the active nature of listening, too few listening materials are designed with this in mind. Listening materials need to expand beyond the traditional "listen-to-a-text-and-answer-questions" format.

Another issue that this research pointed out is that while learners may follow a similar sequence in applying listening strategies, individual differences still occur. For example, Young (1997) reported that although learners showed similar overall patterns of strategy use, some learners had greater repertoires of individual strategies than others. Martin (1982) noted that not all of the strategies are used by each learner and the strategies that are employed are applied differently and with different results. Thus, it is important to remember that despite

apparent commonalities, strategy use is still a very individual matter. Young herself recognized this. On the one hand, she noted that the existence of common patterns in strategy use may lead to the development of listening materials in accordance with those common patterns. On the other hand, she pointed out that a number of factors (e.g., text type, proficiency level) may affect the order of strategy use.

Finally, the issue of generalizability must again be raised. Both Martin (1982) and Young (1997) studied learners of English, albeit of different L1 backgrounds (Spanish and Chinese) and different contexts (L2 and foreign language). They used different text types: Martin used authentic radio broadcasts and Young used commercially prepared listening materials. However, neither compared patterns of strategy use across text types. Young called for more studies to verify the patterns of strategy use that she observed. This should include comparing strategy use patterns across different L2s, different text types, different learning styles, and other variables. For the time being, the findings of Martin and Young can best serve as general guidelines for the preparation of listening materials rather than as the foundation of a “one-size-fits-all” listening curriculum for second and foreign language learners.

Differences Between More- and Less-Proficient Listeners

A number of studies examine differences in the strategy use of more- and less-proficient L2 listeners. However, before discussing those differences, it is important to address how learners are classified as more- and less-proficient listeners and what relationship those classifications might have with overall language proficiency. Regarding how researchers have classified learners as more- or less-proficient listeners, there is a great deal of variation. DeFilippis (1980) and Murphy (1986, 1987) used learners' scores on commercial listening tests to determine listening proficiency. Fujita (1985) classified learners according to their scores on listening tests given as part of their course work. O'Malley, Chamot, and Küpper (1989) asked instructors to judge the listening proficiency of the learners according to a common set of criteria developed with the assistance of the researchers. Rost and Ross (1991) used learners' scores on a dictation test to determine listening proficiency, while Moreira (1996) and Chao (1997) used learners' performance on recall protocols as their measure of listening proficiency. Vandergrift (1993, 1997b) used learners' reported strategy use, collected as data in a previous phase of the study (Vandergrift, 1993, 1996), and teachers' assessments of the learners' performance as his measures of listening proficiency.

The lack of a common, standardized measure of listening proficiency across these studies is problematic in that it may diminish the generalizability of the findings. This is particularly true because some of the studies relied

on highly subjective measures such as teacher assessment of listening proficiency or on assessment measures whose reliability and validity have not been evaluated. Thus, we cannot be sure that each of these studies is measuring the same thing when assessing listening proficiency. In addition, listening comprehension performance may vary according to the task used to assess it (Berne, 1993). Therefore, in order to enhance the generalizability of their findings, researchers may want to consider adopting a common set of well-tested, objective criteria for assessing listening proficiency, such as the ACTFL Listening Proficiency Guidelines (1986).

With respect to the relationship between listening proficiency and overall language proficiency, there is also variation. In DeFilippis (1980), Fujita (1985), Murphy (1986, 1987), and O'Malley et al. (1989), there was no relationship between listening proficiency and overall language proficiency, because each study used learners at a single level of language proficiency. Rost and Ross (1991) observed the expected correlation between listening proficiency and overall language proficiency in that false beginners and elementary-level learners had lower levels of listening proficiency while intermediate and advanced learners had higher levels of listening proficiency. Vandergrift (1993, 1997b) and Moreira (1996) noted similar correlations between listening proficiency and either overall language proficiency or instructional level, although some learners in these studies did not fit the expected pattern. Chao (1997) separated listening proficiency, years of language study, and overall language proficiency by analyzing strategy use by each of these three variables individually. In order to avoid conflating the concepts of listening and language proficiency, the following review focuses on those studies or phases of studies that specifically examine strategy use and listening proficiency.

DeFilippis (1980) found more similarities than differences in the listening strategies of more- and less-proficient listeners. No strategy was reported by one group of learners that was not also reported by the other. In addition, the total number of strategies employed by each group was similar. However, some differences were found. More-proficient learners reported the following more often than less-proficient learners: (a) “automatic flow” of the auditory stimulus; (b) a contextual inferencing strategy; (c) a grammar strategy; (d) a visualization strategy; (e) a cognate strategy, and (f) a role identification strategy. More-proficient learners were also able to organize the auditory input for recall better than less-proficient learners. On the other hand, less-proficient learners reported using a translation strategy and a key word strategy more often than the more-proficient learners.

Fujita (1985) presented two inventories of listening strategies, one for more-proficient listeners and another for less-proficient listeners. He also conducted a factor analysis

of responses on a questionnaire regarding strategy use and identified six factors involved in listening comprehension: (a) self-confidence in listening comprehension; (b) focus/search for meaning; (c) recall notes (mental and/or written); (d) attention to form, self, and others; (e) active participant; (f) prior experience and language study. According to a subsequent discriminant function analysis, three of the six factors appear to discriminate between more- and less-proficient listeners: self-confidence in listening comprehension; focus/search for meaning; and active participant.

Murphy (1986, 1987) investigated differences between more- and less-proficient listeners by looking at how learners with different levels of listening proficiency use listening strategies. Murphy identified four separate patterns used to interpret aural input. The text-heavy and listener-heavy patterns are associated with less-proficient listeners. The wide distribution and holding off until the end patterns are associated with more-proficient listeners. In addition to noting the four patterns of strategy use, other observations that Murphy made include the fact that more-proficient listeners used many more specific strategies (794) than less-proficient listeners (476). They also used a wider variety of strategies and the strategies seemed to interconnect more. Murphy also noted that more-proficient listeners were more concerned with rhetorical organization and they could point out main ideas and supporting details while less-proficient listeners were more concerned with the definition and pronunciation of unknown words.

O'Malley et al. (1989) observed that in the initial (perceptual processing) phase of listening, more-proficient listeners were better able than less-proficient listeners to monitor their attention and redirect their attention to the task if distracted. In the second (parsing) phase of listening, more-proficient listeners attended to larger chunks of information and attended to individual words only when comprehension broke down. They also used inferencing strategies very effectively at this stage. On the other hand, less-proficient listeners focused on individual words and relied more heavily on translation. During the final (utilization) phase of listening, more-proficient listeners used different types of elaboration, made inferences, related information to their own experiences and made judgments about the value of the information. In contrast, less-proficient listeners made fewer elaborations and they did not verify their assumptions about the text nor relate the new information to their own experiences.

Rost and Ross (1991) examined differences in the ways more- and less-proficient listeners employed one particular type of strategy, namely clarification questions. Of the eight specific questioning strategies they identified, Rost and Ross found that four discriminated between more- and less-proficient listeners. Forward inference and continuation signals were more likely to be used by more-proficient listeners

while lexical reprise and global reprise were more likely to be used by less-proficient listeners.¹

Vandergrift (1993, 1997b) found that more- and less-proficient listeners employed different patterns of strategy use. While both more- and less-proficient listeners depended heavily on cognitive strategies, the main difference between the two groups lay in the much greater use of metacognitive strategies by more-proficient listeners, especially comprehension monitoring and problem identification.² In addition, more-proficient listeners used their world knowledge more productively, experienced less shifting between frameworks of interpretation and were better able to suppress irrelevant information. Less-proficient listeners got bogged down because they squandered time and attention on ineffective surface-processing strategies such as translation.

Moreira (1996) found that the same strategies were reported by learners at low, middle, and high levels of listening proficiency, as measured by scores on a recall task. However, those with high levels of listening proficiency used strategies more frequently than learners at middle or low levels of listening proficiency. The high-proficiency listeners also seemed to be more aware of their strategy use than those at lower levels of listening proficiency. High-proficiency listeners were also able to monitor their strategy use in a more flexible way. In addition, high-proficiency listeners reported that they were able to distinguish between important information and details on both recall tasks. Overall, according to Moreira, it appeared that high-proficiency listeners had a clearer picture of their strategy use than did low-proficiency listeners.

Chao (1997) found that more-proficient listeners used strategies significantly more frequently than less-proficient listeners. In addition, more-proficient listeners were better able than less-proficient listeners to focus their attention, keep up with the speed of aural input, make inferences, summarize, and elaborate upon new information. In addition, more-proficient listeners showed more interest in the topic of the aural input and took more notes than less-proficient listeners. Finally, and most especially, more-proficient listeners grasped the overall meaning of a listening text significantly more frequently than less-proficient listeners.

Based on the findings of these eight researchers, it can be concluded that there are differences in the ways that more- and less-proficient L2 listeners employ strategies. Some general observations made regarding these differences are summarized in Table 1.

While it is relatively easy to draw some general conclusions based on the findings of these studies, it is difficult to compare them directly. The research designs used in each study were very different. As noted previously, the instruments used to measure listening proficiency varied across the studies. Likewise, the instruments used to identify strategies varied across studies: questionnaires, think-aloud

Table 1**DIFFERENCES BETWEEN MORE- AND LESS-PROFICIENT LISTENERS**

More-Proficient Listeners	Less-Proficient Listeners
use strategies more often	process input word by word
use a wide range of strategies	rely heavily on translation/key words as strategies
use strategies interactively	are negatively affected by linguistic and attentional constraints
are concerned with the overall rhetorical organization of text	are concerned with definitions/pronunciation of words
are better able to:	make fewer inferences/elaborations
attend to larger chunks of input	do not verify their assumptions
monitor/redirect attention	do not relate what they hear to previous experiences
grasp overall meaning of input	
relate what they hear to previous experiences	
guess meanings of words	
use existing linguistic knowledge to aid comprehension	

protocols, introspection, interviews with researchers, observations of learners' conversations with native speakers, and focus groups. In addition to the lack of comparability, another limitation of this research is that the procedures used in many of these studies obliged the researchers to use fewer than 25 learners. Thus, conclusions were made on the basis of the behavior of a very small group of learners. One very positive feature of this group of studies is that it included learners of several languages, including English (Chao, 1997, DeFilippis, 1980; Murphy, 1986, 1987; O'Malley et al., 1989; Rost & Ross, 1991), Japanese (Fujita, 1985), French (Vandergrift, 1993, 1997b), and Portuguese (Moreira, 1996). The English learners represent a variety of backgrounds as native speakers of Japanese, Chinese, French, and Spanish. Given that many of the same differences between more- and less-proficient listeners were obtained across the various studies, much clearer descriptions of what behaviors are associated with more- and less-proficient listeners are beginning to emerge—descriptions that may apply regardless of the learners' L1 or L2. More research across different languages is needed to confirm this observation.

One final issue related to this line of research is the fact that showing that more- and less-proficient listeners employ strategies differently begs the question of whether and how less-proficient listeners can evolve into more-proficient listeners. Most of this research focused on simply describing the differences and did not address what to do about those differences. Of the researchers cited, only Vandergrift (1997b) and Murphy (1986, 1987) addressed the issue of improving learners' use of listening strategies by providing some specific guidelines for listening strategy instruction. This issue is the focus of the next section.

Listening Strategy Instruction

Mendelsohn (1994, 1995) argued that when teaching L2 listening, instructors should encourage learners to employ the same strategies that they use when listening in their L1. This requires bringing these strategies to a conscious level and helping learners apply them in a second language context. The conscious use of strategies allows strategy use to be monitored and facilitates strategy training. In turn, monitoring and training increase the learners' confidence and their ability to tackle more difficult listening passages. In addition, a strategy-based approach will help learners recognize the value of increasing their repertoires of strategies; thereby allowing them to become more autonomous in their choice of strategies. Finally, this type of strategy-based approach will help learners replace ineffective strategies with effective ones. According to Mendelsohn, a strategy-based approach to teaching listening comprehension does not preclude the need for extensive practice in listening. A strategy-based approach should embed strategy training into listening practice that incorporates a wide range of passage types and purposes for listening.

Vandergrift (1997a) argued for strategy instruction by saying that "instruction in strategic competence can empower beginning students, providing them with useful tools for solving communication problems and enhancing communication." (p. 502). He proposed a sequence of three steps to be included in strategy instruction: (a) present students with appropriate expressions to ask for assistance and indicate noncomprehension; (b) develop and use training videos that allow learners to observe and discuss strategy use; and (c) model and practice reception strategies in class, particularly in group and cooperative activities that require learners to negotiate meaning.

Vandergrift (1996, 1997b, 1999) proposed a different set of steps to guide learners through the listening process and foster the development of metacognitive strategies in particular: (a) familiarize learners with the idea of strategies; (b) teach learners to become strategically smart; (c) teach planning strategies; (d) teach monitoring strategies; (e) teach evaluating strategies; (f) help learners deal with anxiety; (g) talk to learners in the target language; and (h) expose learners to relevant listening texts. According to Vandergrift (1997b), this approach should be adopted during the first two years of language study, with the learners gradually taking over the metacognitive role from the instructor. Ample opportunities for practice are also important so that employing appropriate metacognitive strategies becomes automatic.

Thompson and Rubin (1996) examined empirically whether strategy instruction does indeed improve listening comprehension. They observed that learners receiving strategy instruction scored significantly higher on a video listening test than those who did not. There was no difference between the two groups on an audio test. Analysis of the pre- and posttest scores on the video test revealed a medium-size effect for gain scores. Regarding the difference between performance on the video and audio test, Thompson and Rubin pointed out that the audio test did not parallel the type of instruction given and that the high scores of some learners on the audio pretest left little room for improvement. This observation fit with the logical assumption that if learners demonstrate a high level of listening comprehension prior to instruction, there is little room for improvement and there will be little difference in learners' performance on pre- and posttests. Conversely, if learners demonstrate a low level of listening comprehension prior to instruction, there is more room for improvement and the difference between pre- and posttest scores will be greater.

With respect to the medium-size effect for gain scores on the video test, Thompson and Rubin (1996) stated that some passages used in the video test were many levels above learners' levels of listening comprehension. In addition, the length of instruction (15 hours) was deemed insufficient to facilitate a larger improvement in listening comprehension scores. Finally, Thompson and Rubin speculated that learners may need a higher level of listening comprehension to benefit from listening strategy instruction dealing with input that is not visually reinforced. This suggested that listening instruction must be differentiated by level. It may not be appropriate to teach the same types of strategies to less- and more-proficient listeners since they have different needs and knowledge bases. For example, it would be appropriate to teach less-proficient listeners how to identify cognates in a simple text; however, instruction in how to differentiate main ideas from details in a target language news broadcast may be too far beyond their current

abilities and perhaps should be delayed until learners' listening proficiency has improved. Despite the limitations they cited, Thompson and Rubin concluded that learners' listening comprehension may improve as the result of listening strategy instruction, albeit slowly.

Field (1998) challenged the prevailing notion that listening strategies can and should be taught. He argued that research into whether or not strategy training improves listening comprehension is inconclusive and that strategy training may not benefit learners who are weak strategy users to begin with. Field also questioned the effectiveness of teaching something that is essentially unconscious. He pointed out that learners who are taught strategies have difficulties applying them in real-life situations. Field proposed that listening instruction focus instead on listening subskills, such as recognizing word boundaries, detecting sentence constituents, deducing the meanings of words from context, and inferring relationships (Richards, 1983). For Field, listening subskills are competencies that native speakers have and nonnative speakers need to acquire through instruction and practice. Since strategies already exist in the learner's L1, the goal is to have learners apply them in the L2 context. According to Field, this can be done by modeling strategy use rather than by explicit instruction.

The work of Mendelsohn (1994, 1995), Vandergrift (1996, 1997a, 1997b, 1999), and Field (1998) examined in this section highlighted the importance of listening comprehension instruction, but differed with regard to how that instruction should be implemented and the focus of that instruction. Mendelsohn and Vandergrift both argued for strategy-based approaches to listening instruction and offered very specific suggestions for implementing such instruction. Mendelsohn emphasized the importance of predicting, hypothesizing, and inferencing in addition to strategies that help learners identify the main meaning of an utterance. Vandergrift (1996, 1997b, 1999) emphasized the importance of teaching metacognitive strategies. Both researchers emphasized the importance of encouraging learners to transfer listening strategies from the L1 to the L2 context, of allowing learners to become more independent in their choice of strategies, and of incorporating ample opportunities for listening practice. On the other hand, Field (1998) rejected a strategy-based approach to listening comprehension in favor of an approach that emphasized teaching and practicing discrete listening subskills.

It is important to note that the work of Mendelsohn, Vandergrift, and Field was descriptive and theoretical in nature. None of the researchers examined the effectiveness of his proposed approach empirically. Such research is sorely needed. Proposing various approaches to teaching listening is an important contribution, but instructors and materials designers need to know more about the effectiveness of the various approaches before deciding which to adopt.

Studies can be designed that compare the effectiveness of various strategy-based approaches or that compare the effectiveness of a strategy-based approach with one emphasizing listening subskills. Such information would prove invaluable to the design of listening curricula.

Thompson and Rubin (1996) did empirically compare the listening comprehension performance of learners receiving strategy instruction with those who were not. The fact that theirs is the only such study identified for the present study is indicative of the paucity of such research. Much more research in this area is required, particularly because, as Field (1998) observed, the existing research is inconclusive. Thompson and Rubin pointed out a number of limitations to their research, limitations that can be avoided in future studies. For example, they noted a discrepancy between the strategy instruction received by the learners, which encourages them to use visual information to facilitate comprehension, and the audio test used to assess comprehension. The instrument used to measure comprehension must reflect the instruction received by the learners. Another limitation was the difficulty of some of the listening passages used as input for the testing in their study. Thompson and Rubin argued that the modest gain scores on the video test in their study were due to the extreme difficulty of two of the passages used for the video test. Therefore, in order to get a more accurate assessment of listeners' performance, care must be taken when designing studies to use passages and tasks that are not overly difficult for the learners who participate in the study. If the passages and tasks used in the study are too difficult for the learners, any changes in listening performance obtained through strategy instruction may be obscured by the difficulty of the passages and tasks used to assess it. Finally, Thompson and Rubin mentioned that the time allotted for strategy instruction in their study may have been insufficient. Future studies should allow for more than 15 hours of strategy instruction or perhaps take a more longitudinal approach. By taking care to avoid the types of limitations noted by Thompson and Rubin, we will be able to get a more accurate picture of the effectiveness of strategy instruction.

Strategies Versus Tactics

Goh (1998) differentiated between strategies and tactics. She defines *strategy* as a general approach to solving a comprehension problem and *tactic* as the specific action or step taken to solve the comprehension problem. In terms of strategy use, as had been found in previous studies, Goh found that more-proficient listeners used more strategies than less-proficiency listeners. Of 11 strategies identified as being used by a majority of the learners, all were used by a majority of the more-proficient listeners while only seven were used by the less-proficient listeners.³ Even greater differences were found when learners' use of tactics was

analyzed. The more-proficient listeners employed 10 cognitive and 8 metacognitive tactics. The less-proficient listeners employed four cognitive and two metacognitive tactics. Based on these findings, Goh observed that less-proficient listeners may be more hampered by using fewer tactics, especially metacognitive tactics, than they are by using fewer strategies.

Goh (2002) identified a total of 44 different tactics used by the learners: 22 cognitive tactics grouped under eight cognitive strategies and 22 metacognitive tactics grouped under six metacognitive strategies. In an effort to determine if learners used a combination of listening comprehension tactics in processing each segment of a listening text, Goh examined more closely the protocols of one more-proficient listener and one less-proficient listener. She found that both learners did in fact use a combination of listening tactics when processing individual segments of the text. Both used metacognitive and cognitive tactics and both engaged in top-down and bottom-up processing. However, there were some differences between the two learners. The more-proficient listener used a wider range of tactics while the less-proficient listener used more low-level tactics. Based on her observation that these listeners used a combination of listening tactics, Goh concluded that "although individual tactics were useful, successful comprehension also depended on whether the listener was able to combine various mental tactics in a way that could truly enhance comprehension" (2002, p. 203).

These two studies explored the distinction between strategies and tactics. The findings suggested that less-proficient listeners use a more limited range of tactics than more-proficient listeners and that this more limited range of tactics may hamper the less-proficient listeners more than a limited range of strategies. Moreover, the studies recommended that both strategies and tactics be taught so that learners can broaden their means of operationalizing the strategies they are taught. Next, in addition to training in the use of individual tactics, learners should be made aware of how tactics interact and support one another to facilitate comprehension. Finally, Goh emphasized the importance of raising learners' consciousness regarding strategies, tactics and their uses so that they can make better choices regarding the strategies and tactics they employ and become more flexible in their use of strategies and tactics.

Once again, the issue of generalizability of the findings comes into play when examining these studies. The learners in Goh's studies (1998, 2002) were native speakers of Chinese studying English in Singapore. Further studies could be carried out to see if similar results were obtained with learners of languages other than English and to address the question of if learners of different languages use similar or different listening tactics. Another limitation of Goh's studies may be the small number of informants. Sixteen informants participated in the 1998 study, which

precluded statistical analysis of the findings, and many of the conclusions of the 2002 study were based on comparing the protocols of two informants. Future studies should include more informants to enhance the reliability, validity, and generalizability of the findings.

Despite these limitations, Goh's work takes listening strategy research to another level. By examining learners' use of both strategies and tactics, Goh was able to describe not only the particular approaches that learners take when listening, but also the actual steps taken to assist or enhance comprehension. This distinction allows researchers to tease out even more subtle differences in listening behavior. For example, by distinguishing between strategies and tactics, researchers can examine what, if any, differences exist between learners who report using the same strategy. This in turn would provide researchers with a more complete and detailed picture of what different learners actually do when listening. In addition to allowing researchers to examine subtle differences between learners of a particular language, the distinction between strategies and tactics would allow researchers to examine subtle differences between native and nonnative speakers of a particular language. This would help researchers identify the tactics that need to be taught to learners. Thus, the distinction between strategies and tactics is important because it may provide researchers with a more accurate description of what learners and native speakers actually do when listening and as a result, it may play an important role in the development of listening comprehension curricula.

Identifying Listening Problems

Vogely (1995) found that learners rate top-down strategies as more immediate for listening comprehension and bottom-up strategies as less immediate, though still important.⁴ On the other hand, it appeared that learners were able to access bottom-up strategies more easily than top-down strategies. These findings indicate that there seems to be a gap between the respondents knowing what strategies they should be using and their ability to use those strategies effectively. Vogely suggested that one way to close this gap is through strategy training that emphasizes the process rather than the outcome of listening comprehension.

In a diary study, Goh (1997) observed that learners were very aware of a number of things related to their listening behavior, including the cognitive processes they engaged in during listening, problems that occurred during listening, obstacles to listening comprehension, factors affecting listening comprehension, and both strategies that facilitated listening comprehension and those that were not always effective. According to Goh, listening diaries can be useful as a teaching tool because they can promote discussion of learners' strategies, beliefs, and attitudes. Such discussion encourages learners to evaluate their strategy use, to

try new strategies, and to make better decisions about what they can do to improve their listening comprehension.

Hasan (2000) found that learners were under the false assumption that they had to understand every word and every detail in order to understand a listening text. This led to anxiety and frustration when learners were unable to hear/understand every word, which could impede comprehension. Moreover, when following every word, learners were unable to distinguish the key words that were most important for understanding the text. Focusing on every word also caused learners to become overloaded with information, which then inhibited their ability to monitor the message and grasp the overall meaning of the text. Based on these findings, Hasan suggested that listening instruction should focus on helping learners move away from focusing on individual words to focusing on the relevant parts of the message, on ideas, and on how these ideas are linked to form underlying meanings and conclusions.

Goh (2000) identified 10 problems that learners face when listening in an L2. Five of the problems correspond to the perception phase of listening, three to the parsing phase of listening, and two to the utilization phase of listening. Goh also observed that both more- and less-proficient listeners experienced similar problems, however there were differences in the degree of cognitive constraints experienced by each group. In addition, less-proficient listeners appeared to have more low-level processing problems than more-proficient listeners. Based on her findings, Goh recommended that listening comprehension instruction incorporate practice in eliminating problems related to perception in addition to strategy training.

These four studies seem to suggest that learners are very aware of what they do when listening, what problems they encounter when listening in L2, and what makes a good listener, even though they may not be able to act on that knowledge. If this is true, then learners are able to evaluate their own listening performance and articulate what their needs are. This suggests that instructors and listening materials designers should consult with learners to determine what they think they need to improve their listening comprehension. Including learner input in the discussion when designing listening materials would allow instructors and materials designers to create activities and exercises that better reflect learners' actual needs, not simply perceived needs. Thus, learners should be encouraged to play a more active role in the development of more effective listening curricula.

With regard to the problems learners encounter when listening, it appears that many of these problems occur at fairly low levels of processing. In Vogely (1995), learners tended to resort to bottom-up strategies when communication broke down. In Hasan (2000), learners seemed stuck on analyzing each word individually. In Goh (2000), half of the problems she identified occurred in the perception, or initial,

phase of listening. This suggests that listening instruction should focus first and foremost on helping learners overcome these low-level processing difficulties before encouraging them to use more high-level processing strategies. It may be too much to expect learners to infer what comes next when they are having difficulties “chunking” streams of speech. Future research exploring this issue further is needed, especially research pointing to ways of helping learners move from lower to higher levels of processing.

Conclusion

During the past 25 years, there has been a great deal of interest in issues related to listening comprehension strategies. The current review has focused on research related to six particular areas: types of cues used by listeners; sequence of listening; differences between less- and more-proficient listeners; listening strategy instruction; strategies versus tactics; and identifying listening problems. Some general conclusions regarding research in each area were presented, along with suggestions for future research.

With respect to the types of cues used by listeners, research has suggested that learners should be encouraged to focus on prosodic and semantic cues rather than syntactic cues. However, this research included only learners of English. Future research needs to examine whether learners of other languages, especially typologically different languages, focus on other types of cues. In addition, future research needs to address the best way to encourage learners to adopt more native-like processing strategies. Before such research is conducted, more research into the processing strategies of native speakers may be required. There may be some languages for which such information is readily available (e.g., English), but there may be other languages for which such research is lacking. In addition, more research is needed that directly compares the strategy use of native and nonnative speakers of particular languages. Of the studies reviewed in this study, only two (Conrad, 1981, 1985; Harley, 2000) directly compared the processing strategies of native and nonnative speakers. Additional comparative research is essential if we wish to help learners adopt more native-like strategy use. Regarding the sequence of listening, research shows that learners tend to apply strategies in similar sequences. Nevertheless, learners vary in terms of their repertoires of strategies and in how they apply the strategies available to them. In addition, a number of factors may affect the order in which strategies are applied. Future research needs to verify the observed patterns of strategy use and compare them across variables such as text type and learning style.

The studies examining differences between more- and less-proficient listeners indicate a number of differences in how the two groups of listeners behave. However, the methods used to assess listening proficiency vary a great deal across studies. Future research perhaps should utilize

a common, standardized, and objective measure of listening proficiency, such as the ACTFL Listening Proficiency Guidelines (1986). In addition, most of the research in this area is descriptive in nature and does not address the issue of how to close the gap between more- and less-proficient listeners. Future research in this area should address this issue. For example, studies comparing the frequency with which particular strategies of more-proficient listeners are used before and after instruction would allow researchers to examine whether instruction is indeed an effective way to close this gap. Additional studies comparing the effects of different types of instruction (e.g., more explicit vs. less explicit methods) could help determine if certain forms of listening strategy instruction are more helpful than others. Studies comparing the type and amount of practice with listening strategies could help determine the role of this type of practice in closing the gap between more- and less-proficient listeners. The research into listening strategy instruction also points out some disagreement as to whether listening comprehension should focus on strategies or listening subskills. Here again, most of this research is theoretical and descriptive in nature and does not address the effectiveness of particular proposals. Consequently, more research comparing the effectiveness of strategy-based and subskills-based approaches to listening instruction is needed.

The work of Goh highlights the distinction between strategies and tactics. She found differences in how more- and less-proficient listeners apply strategies and tactics and urges instruction in both. The importance of this distinction is that it allows researchers to tease out more subtle differences in listening behavior. In particular, research comparing how learners and native speakers of a given language apply tactics is needed. Finally, the research into identifying listening problems shows that learners are aware of what they do when listening and of what makes someone an effective listener. They are also able to identify obstacles they encounter when listening. A great number of these problems occur at low levels of processing. Research into how to help learners overcome these difficulties and adopt more sophisticated strategies is needed.

From this summary, it is clear that research related to listening comprehension strategies has provided a wealth of information. However, issues such as the generalizability and the comparability of different studies have been raised. In addition, much of the research has been descriptive in nature and needs to be fleshed out. Many questions remain unaddressed and as a result, listening comprehension strategies will remain a vital and fertile field for researchers to explore.

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Notes

1. *Forward inferencing* is a strategy by which the listener indicates his/her current state of understanding of the narration by asking a question using established (given) information in the story. *Continuation signals* are strategies employed when the listener believes that he/she has created a sufficient representation of the story to continue and indicates the status of that understanding with an overt statement such as "Yes, go on" or a nonverbal gesture such as a nod. *Lexical reprise* is a question referring to a specific word in the preceding narration and includes cases in which the listener repeats, or attempts to repeat a word or phrase with a questioning intonation. *Global reprise* is a strategy by which the listener requests an outright repetition, rephrasing, or simplification of the preceding narration (Rost & Ross, 1991).

2. Vandergrift (1997b) defines *metacognitive strategies* as "mental activities for directing language learning" that include activities related to planning, monitoring, and evaluating one's comprehension (p. 391). *Cognitive strategies* are defined as mental activities for manipulating the language to accomplish a task" and include activities related to elaboration and inferencing (p. 391). The Appendix classifies strategies according to six categories: memory strategies, cognitive strategies, compensation strategies, metacognitive strategies, affective strategies, and social strategies.

3. Goh (1998) observed six cognitive strategies: inferencing; elaboration; prediction; contextualization; fixation; and reconstruction, along with five metacognitive strategies: selective attention; directed attention; comprehension monitoring; real-time assessment of input; and comprehension evaluation.

4. *Bottom-up strategies* are those that focus on linguistic features and encourage learners to analyze individual words for their meaning or grammatical structures before accumulating the meanings to form propositions. *Top-down strategies* are those that focus on the overall meaning of phrases and sentences and encourage learners to make use of real world schematic knowledge to develop expectations of text meaning (O'Malley & Chamot, 1990).

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I. Direct Strategies

A. Memory Strategies

1. Creating mental linkages
 - a. Grouping
 - b. Associating/Elaborating
 - c. Placing new words into a context
2. Applying images and sounds
 - a. Using imagery
 - b. Semantic mapping
 - c. Using keywords
 - d. Representing sounds in memory
3. Reviewing well: Structured reviewing
4. Employing action
 - a. Using physical response or sensation
 - b. Using mechanical techniques

B. Cognitive Strategies

1. Practicing
 - a. Repeating
 - b. Formally practicing with sounds/writing system
 - c. Recognizing and using formulas and patterns
 - d. Recombining
 - e. Practicing naturalistically
2. Receiving and sending messages
 - a. Getting the idea quickly
 - b. Using resources for receiving/sending messages
3. Analyzing and reasoning
 - a. Reasoning deductively
 - b. Analyzing expressions
 - c. Analyzing contrastively (across languages)
 - d. Translating
 - e. Transferring
4. Creating structure for input and output
 - a. Taking notes
 - b. Summarizing
 - c. Highlighting

C. Compensation Strategies

1. Guessing intelligently
 - a. Using linguistic cues
 - b. Using other cues
2. Overcoming limitations in speaking and writing
 - a. Switching to mother tongue
 - b. Getting help
 - c. Using mime or gesture
 - d. Avoiding communication partially or totally
 - e. Selecting the topic
 - f. Adjusting or approximating the message
 - g. Coining words
 - h. Using a circumlocution or synonym

II. Indirect Strategies

A. Metacognitive Strategies

1. Centering your learning
 - a. Overviewing/linking with already known material
 - b. Paying attention
 - c. Delaying speech production to focus on listening
2. Arranging and planning your learning
 - a. Finding out about language learning
 - b. Organizing
 - c. Setting goals and objectives
 - d. Identifying the purpose of a language task
 - e. Planning for a language task
 - f. Seeking practice opportunities
3. Evaluating your learning
 - a. Self-monitoring
 - b. Self-evaluating

B. Affective Strategies

1. Lowering your anxiety
 - a. Using progressive relaxation, deep breathing, or meditation
 - b. Using music
 - c. Using laughter
2. Encouraging yourself
 - a. Making positive statements

- b. Taking risks wisely
- c. Rewarding yourself
- 3. Taking your emotional temperature
 - a. Listening to your body
 - b. Using a checklist
 - c. Writing a language learning diary
 - d. Discussing your feelings with someone else

C. Social Strategies

- 1. Asking questions
 - a. Asking for clarification or verification
 - b. Asking for correction
- 2. Cooperating with others
 - a. Cooperating with peers
 - b. Cooperating with proficient users of the new language
- 3. Empathizing with others
 - a. Developing cultural understanding
 - b. Becoming aware of others' thoughts and feelings